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1523/2 PCT/US

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Complete if Known Substitute for form 1449A/PTO 10/591,096 **Application Number** May 11, 2007 Filing Date INFORMATION DISCLOSURE First Named Inventor David W. Boykin STATEMENT BY APPLICANT Art Unit 1626 (Use as many sheets as necessary) **Examiner Name** Laura L. Stockton

Attorney Docket Number

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Sheet

	U.S. PATENT DOCUMENTS							
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear			
Initials*	No.1	Number - Kind Code ^{2 (If known)}	MM-DD-YYYY	Applicant of Cited Document	Figures Appear			
	1	US-5,628,984	05-13-1997	Boucher, Jr.				
	2	US-6,326,395	12-04-2001	Tidwell et al.				
	3	US-6,867,227	03-15-2005	Wilson et al.				
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	FOREIGN PATENT DOCUMENTS							
Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages	76		
Initials* No.		Country Code ³ - Number ⁴ - Kind Code ⁵ (<i>if known</i>)	MM-DD-YYYY	Applicant of Cited Document	or Relevant Figures Appear			
	4	WO2005/086754	09-22-2005	Georgia State Univ. Res. Found.				
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INFORMATION DISCLOSURE				Filing Date	May 11, 2007	
STATEMENT BY APPLICANT (Use as many sheets as necessary)				First Named Inventor	David W. Boykin	
				Art Unit	1626	
				Examiner Name	Laura L. Stockton	
Sheet	2	of	3	Attorney Docket Number	1523/2 PCT/US	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	5	Ansede et al., "O-Alkoxyamidine Prodrugs of Furamidine: In Vitro Transport and Microsomal Metabolism as Indicators of in Vivo Efficacy in a Mouse Model of <i>Trypanosoma brucei rhodesiense</i> I nfection," Journal of Medicinal Chemistry. Vol. 47, No. 17 pgs. 4335-4338 (2004).	
	6	Bell et al., "Structure-Activity Relationships of Analogs of Pentamidine against <i>Plasmodium falciparum</i> and <i>Leishmania mexicana amazonnensis</i> ," Antimicrobial Agents and Chemotherapy. Vol. 34, No. 7 pgs. 1381-1386 (1990).	
	7	Blagburn et al., "Comparative Efficacy Evaluation of Dicationic Carbazole Compounds, Nitrazoxanide and Paromomycin against <i>Cryptosporidium parvum</i> Infections in a Neonatal Mouse Model," Antimicrobial Agents and Chemotherapy. Vol. 42, No. 11 pgs. 2877-2882 (1998).	
	8	Boykin et al., "2,5-Bis-[4(<i>N</i> -alkylamidino)phenyl]furans as Anti- <i>Pneumocystis carinii</i> Agents," Journal of Medicinal Chemistry. Vol. 41, No. 1 pgs. 124-129 (1998).	
	9	Boykin et al., "Anti-Pneumocystis Activity of Bis-Amidoximes and Bis-O-Alkylamidoximes Prodrugs," Bioorganic and Medicinal Chemistry Letters. Vol. 6, No. 24 pgs. 3017-3020 (1996).	
	10	Brendle et al., "Antileishmanial Activities of Several Classes of Aromatic Dications," Antimicrobial Agents and Chemotherapy. Vol. 46, No. 3 pgs. 797-807 (2002).	
	11	Chavalitshewinkoon-Petmitr et al., "In vitro susceptibility of Trichomonas vaginalis to AT-specific minor groove binding drugs," Journal of Antimicrobial Chemotherapy. Vol. 52 pgs. 287-289 (2003).	
	12	Crowell et al., "Activities of Dicationic Compounds against <i>Trichomonas vaginalis</i> ," Antimicrobial Agents and Chemotherapy. Vol. 48, No. 9 pgs. 3602-3605 (2004).	
and the second s	13	Crowell et al., "In Vitro Metronidazole and Tinidazole Activities against Metronidazole-Resistant Strains of <i>Trichomonas vaginalis</i> ," Antimicrobial Agents and Chemotherapy. Vol. 47, No. 4 pgs. 1407-1409 (2003).	
	14	Das, B.P., and Boykin, D.W., "Synthesis and Antiprotozoal Activity of 2,5-Bis-(4-guanylphenyl)furans," Journal of Medicinal Chemistry. Vol. 20, No. 4 pgs. 531-536 (1977).	

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Sheet 3 of 3				Attorney Docket Number	1523/2 PCT/US

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	15	Del Poeta et al., "In Vitro Antifungal Activities of a Series of Dication-Substituted Carbazoles, Furans, and Benzimidazoles," Antimicrobial Agents and Chemotherapy. Vol. 42, No. 10 pgs. 2503-2510 (1998).	
	16	Del Poeta et al., "Structure-In Vitro Activity Relationships of Pentamidine Analogues and Dication-Substituted Bis-Benzamidazoles as New Antifungal Agents," Antimicrobial Agents and Chemotherapy. Vol. 42, No. 10 pgs. 2495-2502 (1998).	
	17	Francesconi et al., "2,4-Diphenyl Furan Diamidines as Novel Anti- <i>Pneumocystis carinii</i> Pneumonia Agents," Journal of Medicinal Chemistry. Vol. 42, No. 12 pgs. 2260-2265 (1999).	
	18	Ismail et al., "Synthesis and Antiprotozoal Activity of Aza-Analogues of Furamidine," Journal of Medicinal Chemistry. Vol. 46, No. 22 pgs. 4761-4769 (2003).	
	19	Mallena et al., "Thiphene-Based Diamidine Forms a "Super" AT Binding Minor Groove Agent," Journal of the American Chemical Society. Vol. 126 pgs. 13659-13669 (2004).	a garganga paninakara
,	20	Meingassner, J.G., and Thurner, J., "Strain of <i>Trichomonas vaginalis</i> Resistant to Metronidazole and Other 5-Nitroimidazoles," Antimicrobial Agents and Chemotherapy. Vol. 15, No. 2 pgs. 254-257 (1979).	
	21	Stephens et al., "Diguanidino and "Reversed" Diamidino 2,5-Diarylfurans as Antimicrobial Agents," Journal of Medicinal Chemistry. Vol. 44, No. 11 pgs. 1741-1748 (2001).	
	22	Stephens et al., "The Activity of Diguanidino and 'Reversed' Damidino 2,5-Diarylfurans versus <i>Trypanosoma cruzi</i> and <i>Leishmania donovani</i> ," Bioorganic and Medicinal Chemistry Letters. Vol. 13 pgs. 2065-2069 (2003).	
ananananananananananananananananananan	23	Tidwell, R.R., and Boykin, D.W., Dicationic DNA Minor Groove Binders as Antimicrobial Agents, in Small Molecule DNA and RNA Binders: From Synthesis to Nucleic Acid Complexes, Vol. 2 (M. Demeunynch, C. Bailly, and W.D. Wilson, ed., Wiley-VCH, New York, 2003) pgs. 414-460.	

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